

ORIGINAL

LAW OFFICES  
LEVENTHAL, SENTER & LERMAN  
SUITE 600

2000 K STREET, N.W.  
WASHINGTON, D.C. 20006-1809

TELEPHONE  
(202) 429-8970

TELECOPIER  
(202) 293-7783

SENIOR COMMUNICATIONS  
CONSULTANT  
MORTON I. HAMBURG

NORMAN P. LEVENTHAL  
MEREDITH S. SENTER, JR.  
STEVEN ALMAN LERMAN  
RAUL R. RODRIGUEZ  
DENNIS P. CORBETT  
BRIAN M. MADDEN  
BARBARA K. GARDNER  
STEPHEN D. BARUCH  
SALLY A. BUCKMAN  
NANCY L. WOLF  
DAVID S. KEIR  
DEBORAH R. COLEMAN  
J. BRECK BLALOCK  
NANCY A. ORY  
WALTER P. JACOB  
RENEE L. ROLAND\*

February 16, 1995

\*ADMITTED MD ONLY

**BY HAND DELIVERY**

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Room 222  
Washington, D.C. 20554

Attention: Chief, Allocations Branch

Re: Amendment of Section 73.202(b),  
Table of Allotments, FM Broadcast  
Stations. (Big Pine Key, Key Colony  
Beach, Naples and Tice, Florida).  
MM Docket No. 94-155  
DA 94-1501 (RM-8468)  
(released December 27, 1994)

Dear Mr. Caton:

On behalf of The Palmer Broadcast Group, licensee of FM broadcast station, WNOG-FM, Naples, Florida, we are transmitting herewith for filing an original and four copies of "Comments on Notice of Proposed Rulemaking and Opposition to Order to Show Cause" in the above proceeding.

A "Return Copy" of this filing is also enclosed. Please date-stamp the "Return Copy" and return it to confirm your receipt.

Please note that the signed Declaration of Robert Engelhardt, attached to these Comments, is a facsimile. The original Declaration will be submitted upon receipt.

RECEIVED  
FEB 16 1995  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

DOCKET FILE COPY ORIGINAL

LEVENTHAL, SENTER & LERMAN

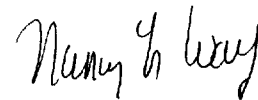
Mr. William F. Caton  
February 16, 1995  
Page - 2 -

RECEIVED  
FEB 16 1995

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Should you have any questions, please contact the undersigned.

Very truly yours,



Nancy L. Wolf  
Renee L. Roland

NLW/RLR:kkj  
Enclosures

BEFORE THE  
**Federal Communications Commission**  
WASHINGTON, D.C. 20554

RECEIVED  
FEB 16 1995  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
 ) MM Docket No. 94-155  
Amendment of Section 73.202(b), )  
Table of Allotments, )  
FM Broadcast Stations. )  
(Big Pine Key, Key Colony Beach, )  
Naples and Tice, Florida )

DOCKET FILE COPY ORIGINAL

To: Chief, Allocations Branch

**COMMENTS ON NOTICE OF PROPOSED RULEMAKING AND  
OPPOSITION TO ORDER TO SHOW CAUSE**

The Palmer Broadcast Group ("Palmer")<sup>1/</sup> by its attorneys and pursuant to Section 1.420 of the Commission's Rules, hereby submits these Comments On Notice of Proposed Rulemaking and Opposition To Order To Show Cause to the Commission's Notice of Proposed Rulemaking and Order to Show Cause, DA 94-1501 (RM-8468) (released December 27, 1994) ("NPRM"), in the above-captioned proceeding which seeks, at the request of Gulf Communications Partnership ("Gulf")<sup>2/</sup> to

---

<sup>1/</sup> Palmer is the licensee of Radio Station WNOG-FM, Channel 228A Naples, Florida.

<sup>2/</sup> Gulf is the permittee of Radio Station WAAD(FM), Channel 229A, Tice, Florida.

substitute Channel 229C2 for Channel 229A at Tice, Florida and to modify Gulf's construction permit to specify operation on the higher class channel. In order to accomplish the proposed upgrade, Gulf requests the substitution of Channel 284A for Channel 228A (93.5 MHz) at Naples, Florida, and the modification of WNOG-FM's license to specify Channel 284A (104.7 MHz).<sup>3/</sup> For the reasons stated below, Palmer opposes the substitution of Channel 284A for Channel 228A at Naples, Florida, and the modification of WNOG-FM's license to specify Channel 284A.<sup>4/</sup>

#### INTRODUCTION

Palmer has operated radio stations serving the community of Naples, Florida for a quarter of a century. In 1954, WNOG(AM), 1270 kHz ("Wonderful Naples On the Gulf") went on the air to offer a news/talk format to Naples and surrounding Collier County. In 1962, WNFM, 94.5 MHz, Naples ("Naples Fine Music") initiated operation to offer Naples and Collier County a

---

<sup>3/</sup> Gulf also requests the substitution of Channel 283C for 284C at Big Pine Key, Florida, and the modification of Station WWUS(FM)'s license to specify Channel 283C, the substitution of Channel 267C2 for Channel 288C2 at Key Colony Beach, Florida, and the modification of Station WKKB(FM)'s construction permit to specify Channel 267C2. See NPRM at ¶ 1.

<sup>4/</sup> Palmer requests the FCC to confirm that it will require Gulf to reimburse WNOG-FM for reasonable costs associated with the proposed change in frequency should the Commission adopt the channel substitution proposal requested by Gulf.

greater variety of informational programming. Both stations have played a vital role in keeping the citizens of Collier County informed of foul weather warnings. "The fact that no lives were lost in Collier County (due to Hurricane Donna in 1960) is due in large part to the warnings broadcast by WNOG," the U.S. Weather Bureau said in issuing WNOG a Public Service Award.

In 1969, WNOG and its sister station WNFM (later renamed WCVU - "Sea View") were purchased by Palmer. Four years later the Palmer broadcast center in downtown Naples became part of the hurricane tracking network of The National Weather Service, following the installation of sophisticated weather monitoring equipment. WNOG continued to offer news and public affairs programming and in 1985 began a combination of local news, information and talk shows 24 hours a day.

In 1993, to compensate for the limited coverage area of WNOG(AM), Palmer acquired WRGI-FM, 93.5 MHz, and changed its call letters to WNOG-FM.<sup>5/</sup> Since that time, WNOG-FM has provided 24 hour nationally syndicated call-in talk shows and related news and informational programming to its community of license, Naples and Collier County. With WNOG(AM) offering "all news" and WNOG-

---

<sup>5/</sup> WNOG-FM has been operating on the air since December 1, 1971. At that time, the station's call letters were WRGI.

FM providing "all talk," the two stations' complementary broadcast of "news-talk" programming serves a significantly larger audience via the combined AM and FM signals than could the AM signal alone. Residents of Naples and Collier County depend on WNOG(AM) and WNOG-FM as the source of their county's **only** news/informational/talk programming. The stations play a vital role in Naples and Collier County by offering reliable and up-to-the-minute coverage of area storms and hurricane warnings. Naples and Collier County residents regularly turn to 93.5 MHz on the dials of their home and car radios to find the vital programming that only WNOG-FM offers. Palmer submits the public interest would be ill-served by a change in the frequency of a station with such a historically strong record of public service.

#### **DISCUSSION**

In the NPRM, the Commission contends that the proposed substitution of Channel 284A for 228A at Naples warrants consideration since this substitution would enable WNOG-FM to operate as a 6 kilowatt station. Palmer submits that a signal increase for Station WNOG-FM from 3 kilowatts to 6 kilowatts will not improve the station's coverage of its community of license since WNOG-FM currently provides the required coverage of Naples,

Florida city limits.<sup>6/</sup> Further, Palmer strongly opposes a change in frequency from Channel 228A to Channel 284A since, as discussed below, it is highly probable that a change in frequency would require WNOG-FM to either significantly reduce its current power or cease operations entirely.

As described in the attached Engineering Report prepared by Harold Munn, Jr. and Associates, Inc., WNOG-FM currently operates with an antenna height above average terrain of less than 100 meters. In order to accommodate the proposed frequency change, the station would be required to increase the height of its antenna.<sup>7/</sup> Accordingly, on July 7, 1994, and in compliance with Federal Aviation Administration (FAA) standards, WNOG-FM filed a proposal to modify the antenna tower and requested the FAA to conduct an aeronautical study to determine the effect the proposed frequency change and modification to the antenna height would have on aircraft navigation facilities. In

---

<sup>6/</sup> Consistent with Section 73.315(a) of the Commission's rules, WNOG-FM operates at a minimum field strength of 3.16 mV/m providing the required 80% coverage of the Naples city limits. See "Engineering Report, Study of FAA Interference Potential", ("Engineering Report") attached hereto as Exhibit A.

<sup>7/</sup> Due to the wide frequency span between WNOG-FM's present Channel 228A, and the proposed Channel 284A, WNOG-FM would be required to replace its antenna for operation on the higher frequency. See Exhibit A at 2.

a letter dated November 2, 1994, Armando Castro, Airspace Specialist of the Air Traffic Division of the Southern Region office of the FAA, advised Palmer that as a result of the proposed frequency change ". . . the Naples Municipal Airport will be subject to hazardous third signal/third order intermodulation interference ... resulting in navigation receiver overload."<sup>8/</sup> The intermodulation interference would be caused by a combination of the proximity of WNOG-FM to an existing station and the proximity of WNOG-FM to the Collier County Very High Frequency OmniRange (VOR) facility.<sup>2/</sup> Interference would cause aircraft pilots to receive erroneous navigation guidance information when using the Collier County VOR station. Accordingly, the FAA required the FCC to subject any proposed WNOG-FM permit or license to the following condition:

"Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such

---

<sup>8/</sup> See "November 2, 1994 Aeronautical Study of the Federal Aviation Administration" at 2, ("Aeronautical Study") attached hereto as Exhibit B.

<sup>2/</sup> As noted in the Engineering Report, this interference would be a direct result of the frequency change proposed by WNOG-FM and is not related to the antenna height of the proposal. See Exhibit A at 1.



immediate corrective action as is necessary  
to eliminate the harmful interference."<sup>10/</sup>

Consequently, interference to the reception of the Collier County  
VOR facility by aircraft navigation receivers will subject WNOG-  
FM to three completely unacceptable scenarios.

First, if WNOG-FM is required to change frequency, the  
station may be forced to drastically reduce power in order to  
comply with the FAA condition. As demonstrated in the attached  
Engineering Report, a reduction in power to prevent interference  
to aircraft operations would cause WNOG-FM to be in violation of  
§ 73.315(a) of the Commission's rules.<sup>11/</sup> Specifically, in  
order to eliminate potential interference, WNOG-FM would be  
required to reduce its effective radiated power to less than 0.27  
kW (270 watts).<sup>12/</sup> At this power level, WNOG-FM cannot provide  
the required 3.16 mV/m (70dBu) service to at least 80% of the  
Naples city limits, as required by § 73.315(a).<sup>13/</sup> Rather,

---

<sup>10/</sup> See Exhibit B at 1.

<sup>11/</sup> See Exhibit A at 2. Section 73.315(a) requires the location  
of an FM transmitter to be determined "on the basis of the  
effective radiated power and antenna height above average  
terrain employed [such that] a minimum field strength of 70  
dB above one uV/m (dBu), or 3.16 mV/m, is provided over the  
entire principal community to be served."

<sup>12/</sup> Exhibit A at 2.

<sup>13/</sup> Id.

operation at 0.27 kW would serve considerably less than 50% of WNOG-FM's community of license.<sup>14/</sup> Accordingly, not only would a great number of WNOG-FM's listeners lose service altogether, but a reduction in power would violate the FCC's rules and Palmer would thus find itself in the untenable position of harming the public interest while simultaneously violating an FCC rule.

Second, Palmer submits that it is unquestionably unreasonable that WNOG-FM should be forced to cease operations entirely, a potential result should intermodulation interference occur as a result of Gulf's proposed frequency change. WNOG-FM has been operating on the air on its current channel for a quarter of a century. Further, as discussed supra, WNOG(AM)/(FM) are the Naples community's only source for all news/all talk programming and the leading source in Collier County for vital local and national news as well as public affairs and other informational programming. Accordingly, it would greatly disserve the public interest and affirmatively harm the citizens of Naples and surrounding Collier County were WNOG-FM forced to cease operations entirely.

---

<sup>14/</sup> Id. WNOG-FM currently provides a 3.16mV/m signal level as required by § 73.315(a), serving its community of license. See n.6 supra.

Finally, Palmer demonstrates in its Engineering Report that there are no available corrective actions that WNOG-FM may take to eliminate interference should the station's current antenna be replaced for operation on the higher frequency. Specifically, should the frequency changes proposed by Gulf be adopted and the Commission amend the Table of Allotments, Channel 228A will be removed from Naples, Florida. Consequently, should any intermodulation interference occur, WNOG-FM will be unable to return to its present channel and unable to reduce power in compliance with the Commission's rules. Accordingly, WNOG-FM will have no recourse but to cease operations completely. No other corrective actions exist which would satisfy the FCC, the FAA and the public interest.

Accordingly, Palmer strongly objects to any proposed frequency change which would result in the strong probability of a total loss or severe reduction in service for WNOG-FM. While Palmer recognizes the FCC has the authority to require existing stations to change frequencies in order to accommodate other new or upgraded radio services, requiring existing stations with a long history of public service to experience a complete loss or drastic curtailment of service does not serve the public interest. Consequently, the substitution of Channel 284A for

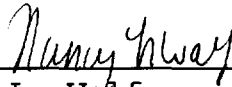
Channel 228A requested by Gulf is not a frequency change WNOG-FM should be required to accept.

For the foregoing reasons, Palmer respectfully urges that the Commission not substitute Channel 284A for Channel 228A at Naples, Florida and requests that WNOG-FM's license not be modified to specify Channel 284A.

Respectfully submitted,

THE PALMER BROADCAST GROUP

By: \_\_\_\_\_

  
Nancy L. Wolf

Renee L. Roland

Leventhal, Senter & Lerman  
Suite 600  
2000 K Street, N.W.  
Washington, D.C. 20006

(202) 429-8970

February 16, 1995

Its Attorneys

**DECLARATION**

I, Robert Engelhardt, under penalty of perjury, hereby declare the following:

1. I am the Executive Vice President of Palmer Communications Incorporated, parent company of The Palmer Broadcast Group.

2. I have reviewed the foregoing "Comments on Notice of Proposed Rulemaking and Opposition To Order To Show Cause", and to the best of my knowledge, information and belief, all of the facts contained therein are true and correct.

Executed this 16th day of February, 1995.

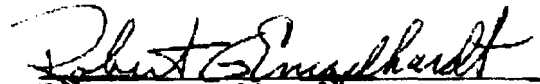
  
Robert Engelhardt

Exhibit A

Engineering Report  
Study of FAA Interference Potential

**ENGINEERING REPORT**  
**Study of FAA Interference Potential**  
**WNOG-FM**  
**Naples, FL**  
**January, 1995**

COPYRIGHT 1995

**E. HAROLD MUNN, JR. & ASSOCIATES, INC.**  
Broadcast Engineering Consultants  
Coldwater, MI 49036

## CERTIFICATION OF CONSULTANT

The firm of E. Harold Munn, Jr. & Associates, Inc., Broadcast Engineering Consultants, with offices at 100 Airport Drive, Coldwater, Michigan, has been retained for the purpose of preparing the technical data submitted in this report.

The data utilized in this report was taken from the FCC Secondary Database and other data on file. While this information is believed accurate, errors or omissions in the database and file data are possible. This firm may not be held liable for damages as a result of those data errors or omissions.

The report has been prepared by or under the direction of the undersigned, whose qualifications are a matter of record before the Federal Communications Commission.

I declare under penalty of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

E. Harold Munn, Jr. & Associates, Inc.

January 27, 1995

by Virgil M. Royer  
Virgil M. Royer, Staff Engineer  
Wayne S. Reese, President

100 Airport Drive, Box 220  
Coldwater, Michigan 49036-0220

(517) 278-7339



## **DISCUSSION**

This firm was retained to study the potential impact on FAA aircraft navigation facilities from a frequency change which is proposed for FM Broadcast Station WNOG-FM, Naples, Florida. WNOG-FM presently operates on Channel 228, 93.5 MHz. A proposal before the Commission (MM Docket No.94-155, RM-8468) would move WNOG-FM to Channel 284, 104.7 MHz.

WNOG-FM operates with an antenna height above average terrain of less than 100 meters, and a proposal was filed with the Federal Aviation Administration (FAA) Southern Regional Office to cover a minor structure height increase, and to reflect the proposed WNOG-FM frequency change. The FAA, in Study No. 94-ASO-1746-OE, identified the potential for hazardous third signal/third order intermodulation interference of type (B)  $f_1 + f_2 - f_3$ , resulting in navigation receiver overload. This situation was detailed by FAA letter of November 2, 1994. Copy is attached hereto. The intermodulation interference is caused solely by the WNOG-FM frequency change, and is not related to the antenna height of the proposal.

While the FAA issued a conditional determination of No Hazard, that permit was issued based on a WNOG-FM construction permit or license to radiate being severely conditioned as follows:

"Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after one year of interference-free operation."

In order to more clearly verify the potential impact on the referenced FAA navigation aid, the FAA Airspace Analysis Model, Version 4.2 was run by this office.

The study clearly shows that there would be serious interference to the reception of the Collier County VOR (Very highfrequency OmniRange) facility by aircraft navigation receivers. This interference would present erroneous navigation guidance information to the pilot of an aircraft attempting to use the Collier Co. VOR station as a primary navigation aid. This interference would be a direct result of the frequency change proposed for WNOG-FM. The tabulated (Figure 1) and plotted (Figure 2) data from the study is included as part of this report. The proximity of WNOG-FM and WSGL to each other and to the FAA facility contribute to the interference potential. The spatial relationships are shown on the facilities plot Figure 3.

Figure 1 lists the FM stations and FAA facilities studied. The FM stations which are underlined in that tabulation are those which are involved in the intermodulation interference to the reception of the Collier Co. VOR station. This listing shows the station call, frequency, location, ERP, antenna height, distance and bearing from the FAA facility, in this case the VOR station identified as CCE. WSGL (Channel 276, 103.1 MHz) and WNOG-FM (proposed Channel 284, 104.7 MHz) are licensed to Naples, Florida. WCKT (Channel 296, 107.1 MHz) is licensed to Lehigh Acres, Florida.

Due to the wide frequency span between the present WNOG-FM channel and the proposed Channel 284, the WNOG-FM antenna must be replaced for operation on the higher frequency. The transmitter would require major modification to change channels as well. In the event of interference to the FAA facility, a return to the present channel would be impossible as the Table of Allotments would have been changed removing Channel 228(A) from Naples, Florida.

A power reduction to prevent the interference to aircraft operations would not be practical for WNOG-FM. In order to eliminate the interference, the effective radiated power of WNOG-FM would have to be reduced to less than 0.27 kW (270 watts). At this power level, WNOG-FM cannot provide the required 3.16 mV/m (70 dBu) service to an area encompassing 80% of the Naples city limits, as required by §73.315(a). Figure 4 is a map showing the fact that, at full power the 3.16 mV/m contour just covers 100% of the Naples, Florida city limits. The inner contour which is plotted shows the 3.16 mV/m contour from operation at 0.27 kW ERP. This contour would serve less than 50% of the community. Thus, operation at a power level that would not produce interference to aircraft operation would not comply with §73.315(a), and could not be licensed by the Commission.

With reported interference to aircraft navigation reception, WNOG-FM would have no choice but to cease operation, which would result in a total loss of broadcast service. Thus, due to the potential for aircraft navigational interference, the proposed frequency change by WNOG-FM is not acceptable and should not be permitted by the Commission.

FIGURE 1

Airspace case #: 94-ASO-1746-OE Site: NAPLES FL  
 Date: 01/27/95  
 Navaid Identifier: CCE  
 Navaid Frequency (MHz): 108.60  
  
 Navaid Latitude: 26. 9 12  
 Navaid Longitude: 81. 46 41  
  
 Navaid Elevation (Ft. MSL): 10.

| Prop<br>Stat | ID | Call | Freq<br>(MHz) | Latitude  | Longitude | ERP<br>(Kw) | Height<br>(MSL) | Range<br>(NM) | Radial<br>(True) | Lic<br>Stat |
|--------------|----|------|---------------|-----------|-----------|-------------|-----------------|---------------|------------------|-------------|
| *            | 1  | WSGL | 103.10        | 26. 7 34  | 81. 43 16 | 14.000      | 443.            | 3.48          | 118.03           | C           |
|              | 2  | WNOG | 104.70        | 26. 7 22  | 81. 43 21 | 4.500       | 387.            | 3.51          | 121.50           | P           |
|              | 3  | WCKT | 107.10        | 26. 19 1  | 81. 47 12 | 25.500      | 722.            | 9.83          | 357.30           | L           |
|              | 4  | VPGD | 110.20        | 26. 54 59 | 81. 59 29 | .050        | 36.             | 47.19         | 345.96           | V           |
|              | 5  | VLBV | 110.40        | 26. 49 41 | 81. 23 28 | .050        | 32.             | 45.50         | 27.17            | V           |
|              | 6  | VRSW | 111.80        | 26. 31 47 | 81. 46 33 | .050        | 36.             | 22.58         | .30              | V           |

Interference thresholds are computed using the following:

Type of navaid antenna: VOR, Generic  
 Type of service volume: Terminal VOR

Listing of A2/B2 Evaluations

| Freq<br>(MHz) | ID | Call | Offset<br>(MHz) | #Pts |
|---------------|----|------|-----------------|------|
|---------------|----|------|-----------------|------|

No A2/B2 points found.

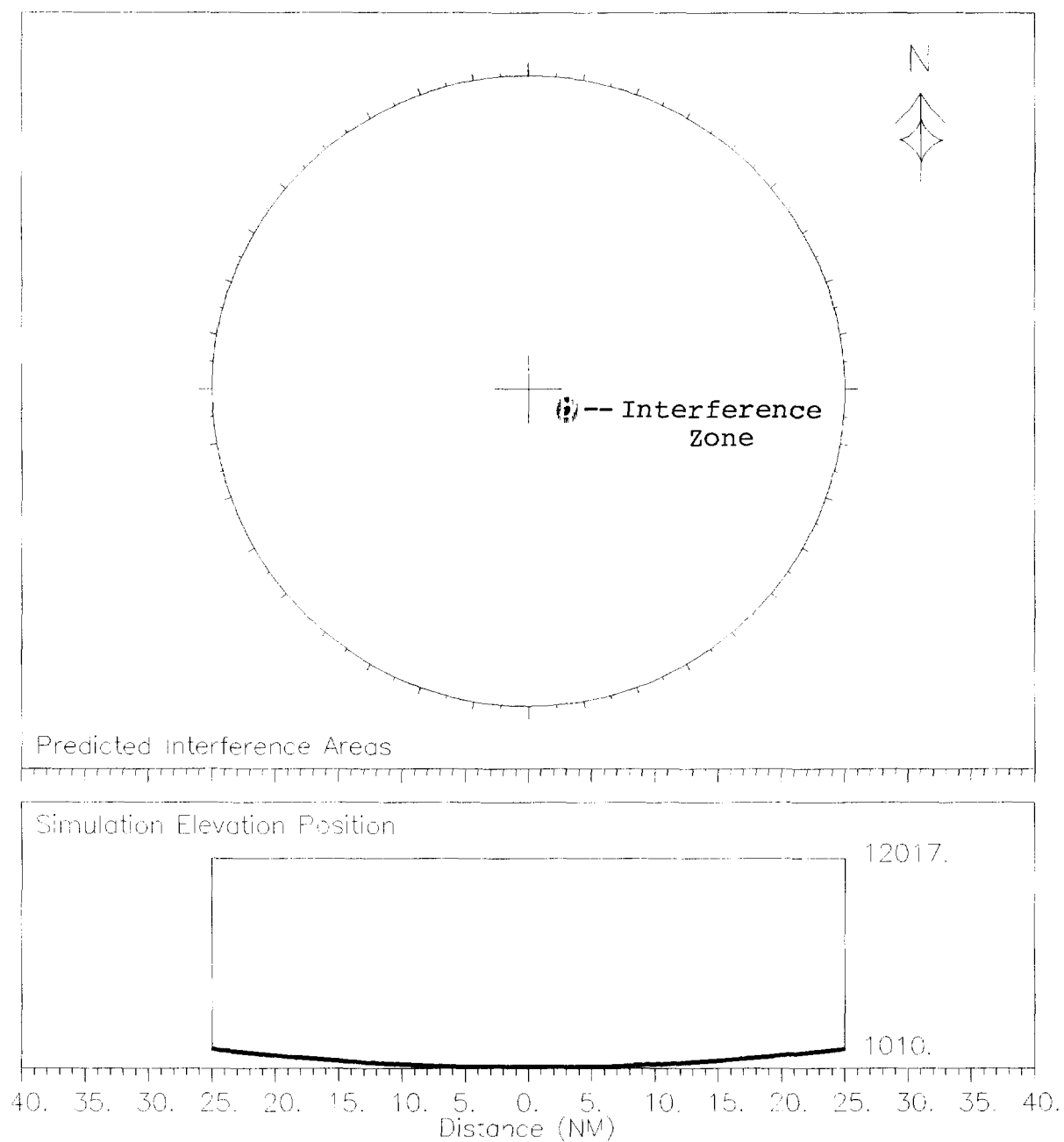
There are no 2-signal intermodulation (B1) combinations for this data file.

Listing of 3-signal intermodulation (B1) combinations

| Freq 1<br>(MHz) | ID   | Call | Freq 2<br>(MHz) | ID   | Call | Freq 3<br>(MHz) | ID   | Call | IMod<br>(MHz) | Offset<br>(KHz) | #Pts |
|-----------------|------|------|-----------------|------|------|-----------------|------|------|---------------|-----------------|------|
| 107.10          | ( 3) | WCKT | 104.70          | ( 2) | WNOG | 103.10          | ( 1) | WSGL | 108.70        | 100             | 52   |

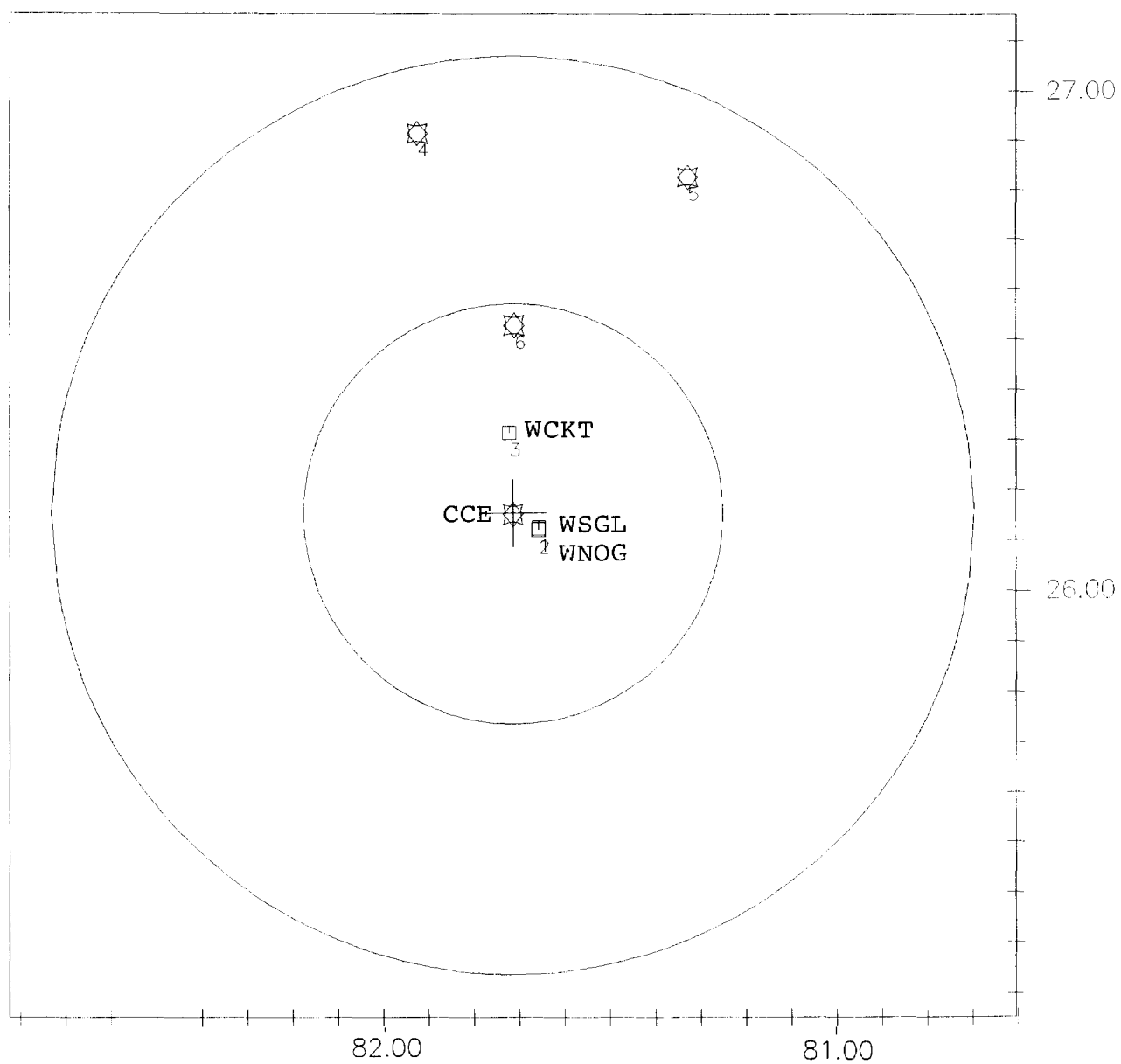
Note: Some 3-signal B1 points masked by A2/B2 interference.

FIGURE 2

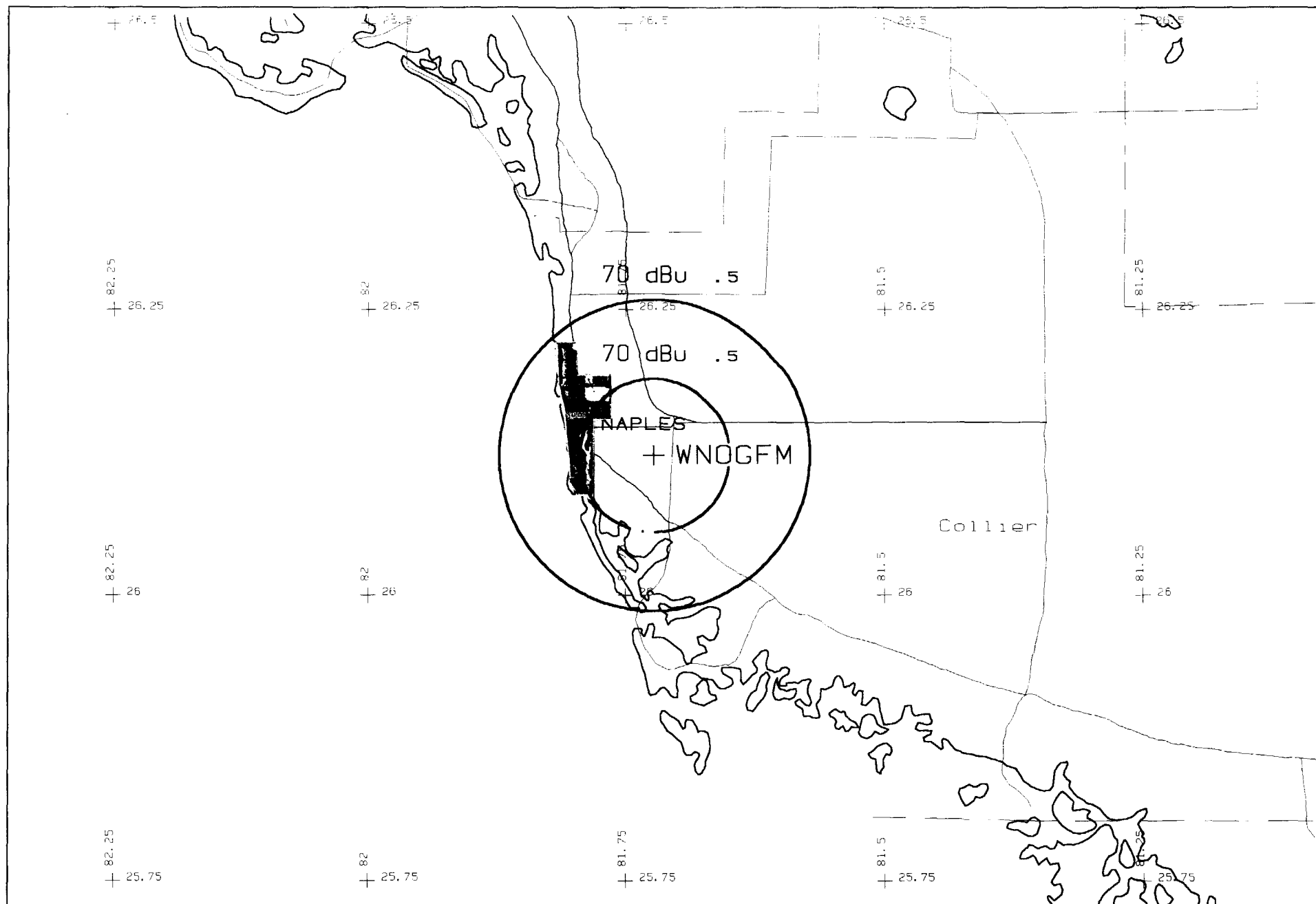


Airspace case #: 94-ASO-1746-OE Site: NAPLES FL  
Date: 01/27/95 Plot filename: 03\_02\_01.plt  
Intermod (B1) plot: WCKT ( 3), WNOG ( 2), & WSGL ( 1)  
Frequencies: WCKT = 107.10 MHz WNOG = 104.70 MHz WSGL = 103.10 MHz  
Navaid: CCE Frequency: 108.60 MHz Elevation (ft MSL): 10.  
Grid orientation: Bottom of service volume

FIGURE 3  
FACILITIES PLOT



Airspace case #: 94-ASO-1746-OE  
 Nav ID = CCE Nav Freq = 108.60 MHz Search Zone: 30nm  
 Heading = N/A  
 Runway Altitude (Ft MSL) = 10.  
 Latitude = 26 - 9 - 12 N  
 Longitude = 81 - 46 - 41 W



|   |   |   |
|---|---|---|
| <p>Scale in km</p> <p>0 10 20 30 40</p> | <p>WNOGFM BLH5343 284A 4.5kW</p> <p>N. Lat. 26 07 21 W. Lng. 81 43 22</p> | <p>WNOG STUDY FIG. 4</p> <p>MUNN &amp; ASSOC.</p> |
|---|---|---|

Exhibit B

Aeronautical Study of the  
Federal Aviation Administration



U.S. Department  
of Transportation  
  
Federal Aviation  
Administration

Southern Region

P.O. Box 20636  
Atlanta, Georgia 30320

November 2, 1994

Robert Englehardt  
Palmer Communications Inc.  
12800 University Drive  
Ft. Myers, Florida 33907-5333

Dear Mr. Englehardt:

Re: Aeronautical Study No. 94-ASO-1746-OE  
Latitude: 26°07'22.3"N  
Longitude: 81°43'21.3"W

An aeronautical study of your proposal to construct an antenna tower near East Naples, FL, has been completed.

Our analysis indicates that aircraft operating in the frequency protect service volume (FPSV) making an VOR-T instrument landing at the Naples Municipal Airport will be subject to hazardous third signal/third order intermodulation interference of type (B)  $f_1 + f_2 - f_3$ , resulting in navigation receiver overload. This interference would be caused by the proposed frequency in combination with an existing stations as follows:

WKCT(107.1MHz) + Proposed(104.7MHz) - WGL(103.1MHz)=CCE/VOR(108.7+/-100.0MHz)

Intermodulation interference occurs whenever two or more signals or their integer multiples combine in such a manner that the product is the frequency to which the receiver is tuned. These signals combine in the nonlinear external devices to produce sum and difference frequencies through heterodyne action.

Therefore, a determination of No Hazard will be issued provided the following conditional statement is included in the proponent's construction permit or license to radiate:

"Upon receipt of notification from the Federal Communications Commissions that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after one year of interference-free operation."

Sincerely,

Armando Castro  
Airspace Specialist  
System Management Branch  
Air Traffic Division





U.S. Department  
of Transportation  
  
Federal Aviation  
Administration

SOUTHERN REGION  
ATTN: ASO-532  
P. O. BOX 20636  
ATLANTA, GEORGIA 30320  
404-305-5588

- 2 -  
AERONAUTICAL STUDY  
NO 94-ASO-1746-

## DETERMINATION OF NO HAZARD TO AIR NAVIGATION

|                              |   |   |                              |                            |
|------------------------------|---|---|------------------------------|----------------------------|
| <b>SPONSOR</b>               | <b>ROBERT ENGELHARDT</b><br><b>PALMER COMMUNICATIONS INC</b><br><b>12800 UNIVERSITY DR.</b><br><b>FT MYERS, FL 33907-5333</b> |   | <b>CONSTRUCTION LOCATION</b> |                            |
|                              |   |   | <b>PLACE NAME</b>            |                            |
|                              |   |   | <b>EAST NAPLES, FL</b>       |                            |
|                              |   |   | <b>LATITUDE</b>              | <b>LONGITUDE</b>           |
|                              |   |   | <b>26°07'22.30"</b>          | <b>81°43'21.30" NAD 83</b> |
| <b>CONSTRUCTION PROPOSED</b> | <b>DESCRIPTION</b>  | <b>Antenna Tower (104.7 MHz/4.5 KW)</b> |                              |                            |
|                              |   | <b>HEIGHT, IN FEET:</b>                 |                              |                            |
|                              |   | <b>ABOVE GROUND</b>                     | <b>ABOVE MSL</b>             |                            |
|                              |   | <b>390</b>                              | <b>- 400</b>                 |                            |

An aeronautical study of the proposed construction described above has been completed under the provisions of Part 77 of the Federal Aviation Regulations. Based on the study it is found that the construction would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore pursuant to the authority delegated to me, it is hereby determined that the construction would not be a hazard to air navigation provided the following conditions are met:

### Conditions

The structure should be obstruction marked and lighted in accordance with the standards of the FAA Obstruction Marking and Lighting Advisory Circular 70/7460-1H, Chapters 3, 4, 5 & 13.

- Supplemental notice of construction is required any time the project is abandoned (use the enclosed FAA form), or  
10 days .
- ☒ At least 45 days before the start of construction (use the enclosed FAA form)
- ☒ Within five days after the construction reaches its greatest height (use the enclosed FAA form)

This determination expires on **6/13/95**

unless

- (a) extended, revised or terminated by the issuing office
- (b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

**NOTE:** Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

This determination is subject to review if an interested party files a petition on or before **12/3/94**. In the event a petition for review is filed, it should be submitted in triplicate to the Manager, Flight Information and Obstructions Branch, AAT-210, Federal Aviation Administration, Washington, D.C. 20591, and contain a full statement of the basis upon which it is made.


This determination becomes final on **12/13/94** unless a petition for review is timely filed, in which case the determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review.

An account of the study findings, aeronautical objections, if any, registered with the FAA during the study, and the basis for the FAA's decision in this matter will be found on the following page(s).

If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that Agency.

This determination, issued in accordance with FAA Part 77, concerns the effect of this proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

**DISTRIBUTION: ZAT-03**

SIGNED  TITLE Airspace Specialist  
Armando Castro System Management Branch  
ISSUED IN College Park, GA ON 11/3/94